



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/675,135

09/29/2003

Michael J. Brookman

30552/39676A

5725

4743 7590 03/05/2007  
MARSHALL, GERSTEIN & BORUN LLP  
233 S. WACKER DRIVE, SUITE 6300  
SEARS TOWER  
CHICAGO, IL 60606

EXAMINER

DIXON, ANNETTE FREDRICKA

ART UNIT

PAPER NUMBER

3771

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
--	-----------	---------------

3 MONTHS

03/05/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/675,135	<b>Applicant(s)</b> BROOKMAN, MICHAEL J.	
	<b>Examiner</b> Annette F. Dixon	<b>Art Unit</b> 3771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 07 December 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 6-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 6-22 is/are rejected.
- 7) ☒ Claim(s) 1-4, and 6-22 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 September 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>10/18/06</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Drawings***

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "19" has been used to designate "purified air", "cleaned air", "separate exit" and "exit".
2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: "13" and "42".
3. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Objections***

4. Claims 1-4, and 6-22 are objected to because of the following informalities:  
Applicant is advised to select one consistent term to denote the person who operates

Art Unit: 3771

the breathing apparatus. For example, claim 3 recites a "wearer" and claim 7 recites a "user". Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

5. Claims 1-4, 6-8, 14, and 17-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 1-4, 6-8, and 17-19, the phrase "and/or" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Regarding claims 1-4, 6-8, 14, and 17-19, the use of "/" in "filter/canister system" and "filter/decontamination elements" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Regarding claims 1-4, 6-8, and 17-19, the word "means" is preceded by the word(s) "adapted to" or "to" in an attempt to use a "means" clause to recite a claim element as a means for performing a specified function. However, since no function is specified by the word(s) preceding "means," it is impossible to determine the equivalents of the element, as required by 35 U.S.C. 112, sixth paragraph. See *Ex parte Klumb*, 159 USPQ 694 (Bd. App. 1967).

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. Claims 1-4, and 6-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kimm et al. (5,161,525) in view of Yagi et al. (7,077,133).

As to Claims 1, 3, and 9-12, Kimm discloses a breathing apparatus comprising: a tank (12) adapted to contain air under pressure; a regulator (the interaction of the control system, 46 with the sensors 16, 18, and 43. Column 8, Lines 47-50) coupled to the tank to enable delivery of said pressurized air to a user; a filter system (38) to enable ambient air to pass through a filter medium; a powered air flow unit that forces ambient air into the filter system (Column 8, Lines 11-14), through said filter medium and into operative relationship with a user of the apparatus and a valve assembly (the combination of elements 20 and 22) associated with the filter system and tank such that the pressurized air from said tank engages the valve assembly to move the valve

Art Unit: 3771

assembly from a filtered air position, whereby the filtered system delivers filtered air to the user, to a clean air position whereby the tank delivers pressurized air to the user.

Further Kimm disclose a face mask (30) adapted to fit a user. Kimm discloses all the recited elements with the exception of the location of the filter in proximity to the powered air flow unit to enable the ambient air to pass through the filter medium.

However, at the time the invention was made the use of a filter on the ambient air intake was well known. Specifically, Yagi teaches an ambient intake port having a filter (9) and a compressor (13) for removing dust and dirt prior to user inhalation. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Kimm to include the filter orientation as taught by Yagi, to prevent the user inhalation of hazardous particles. (Figure 1).

As to Claims 2, and 14, the system of Kimm/Yagi discloses the filter system of the claimed invention except for a plurality of filtering elements. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have multiple filtering elements, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

As to Claims 4, 13, 17, 18, 20, and 21, Kimm discloses a valve assembly (the combination of elements 20 and 22) includes a first conduit (17) between said tank and said face mask, a second conduit (19) between said filter/canister system and said face mask, and one or more valves (20 or 22) operatively associated with said first and

Art Unit: 3771

second conduits adapted to control the flow of cleaned air from said filter/canister system or air from said tank to said user. (Figure 1).

As to Claims 6 and 15, Kimm discloses a one way exhaust valve (44) associated with said facemask. As disclosed by Kimm, when the control means (46) detects exhalation effort by the user, the exhaust valve is operated. (Column 9, Lines 47-55). Further, extrinsic evidence is provided by prior art references Spergel ('163) and Simpson ('056), which disclose the use of exhalation valves to prevent the user from re-breathing of exhausted gas.

As to Claims 7, 8, 16, 19, and 22, Kimm discloses a switch (46) associated with the means to move and couple to the valve assembly, the switch adapted to control energization of the moving means in conjunction with operation of the valve assembly. Further, Kimm discloses the switch (46) is user actuatable. As disclosed by Kimm, when the control means (46) detects exhalation effort by the user, the exhaust valve is operated. (Column 9, Lines 47-55).

### ***Double Patenting***

9. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422

Art Unit: 3771

F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

10. Claims 1-4, 6-10, and 13-20 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1-4, 6 and 9 of copending Application No. 10/393,346. Although the conflicting claims are not identical, they are not patentably distinct from each other because instant independent claims 1 and 9 are broader than copending claim 1. It is clear that all of the elements of instant claims 1 and 9 are found in copending claim 1. The difference lies in the fact that the copending claim includes many more elements and is thus much more specific. Thus the invention of the copending claim is in effect a "species" of the "generic" invention of the instant claims 1 and 9. It has been held that the generic invention is "anticipated" by the "species". See *In Re Goodman*, 29 USPQ2d 2010 (Fed. Cir. 1993). Since claims 1 and 9 are anticipated by copending claim 1, it is not patentably distinct. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

The limitations of instant claim 2 and 14 are found in copending claim 2. The limitations of instant claim 3 and 10 are found in copending claim 3. The limitations of the instant claims 4, 13, 17, and 18 are found in copending claims 4. The limitations of



Art Unit: 3771

instant claims 6 and 15 are found in copending claim 6. The limitations of instant claims 7, 8, 16, 19 and 20 are found in copending claim 9.

### ***Conclusion***

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The balance of art listed by US patent number lists additional inventions in the field of breathing apparatuses capable of a clean air mode and a filtered air mode.

*Budd (5,461,934); Davis (5,611,485); Duff et al (6,269,811); Jafari et al. (6,626,175); Kimm et al. (5,660,171 and 5,390,666); Spergel (4,440,163); and Truschel (6,360,741)*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Annette F. Dixon whose telephone number is (571) 272-3392. The examiner can normally be reached on Monday thru Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Justine Yu can be reached on (571) 272-4835. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3771

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Annette F. Dixon  
Examiner  
Art Unit 3771



JUSTINE R. YU  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3700

2/28/07